

REMARKS

Applicants will address each of the Examiner's objections and rejections in the order in which they appear in the Office Action.

Claim Objections

In the Office Action, the Examiner objects to Claim 6 for an informality therein and is requesting that the word "complex" be inserted after "metal" in the claim. Applicants have done so and request that this objection be withdrawn.

In light of the Examiner's statement that Claim 6 contains allowable subject matter, it is respectfully requested that Claim 6 now be allowed.

Claim Rejections - 35 USC §103

Claims 4, 5 and 36-39

The Examiner also rejects Claims 4, 5 and 36-39 under 35 USC §103(a) as being unpatentable over Shi et al. (US 6,680,132). This rejection is respectfully traversed.

In particular, the Examiner contends that Shi discloses red organic electroluminescent devices comprising a red-emitting dopant (guest) and a complex of Group 4 metal (host), and further contends that Shi teaches "the complexes as suitable hosts and the red emitting compounds as suitable red dopants for a luminescent layer of an electroluminescent device." Applicants respectfully disagree.

One of the novel and unique features of the claimed invention is the selection of the complexes of Group 4 metal as a host material when a guest material is a red-emission compound. This combination was not conceived of previously.

For example, conventionally, Alq_3 is used as a host material. However, with such a combination, there is a significant problem in that there is a large energy gap between the host material, such as Alq_3 , and the red light emitting guest material, and accordingly, energy cannot be transferred efficiently from the host material to the guest material. Shi merely discloses the complexes Group 1-4 metal as a host material. Shi, however, does not recognize or suggest the effect of selecting the complexes of Group 4 metal as a host material when a guest material is a red-emission compound. Hence, Shi does not appear to recognize the problem that the present invention overcomes or the claimed solution to this problem.

Accordingly, it would not have been obvious to one of ordinary skill in the art to derive the claimed invention from Shi. Therefore, it is respectfully submitted that Claims 4, 5 and 36-39 are patentable over Shi, and it is requested that this rejection be withdrawn.

Claims 11-35

The Examiner also rejects Claims 11-35 under 35 USC §103(a) as being unpatentable over Shi in view of Kim et al. (US 6,614,176). This rejection is also respectfully traversed.

For the same reasons as discussed above, Claims 11-35 are also not disclosed or suggested by Shi or Kim. Accordingly, it would not have been obvious to one of ordinary skill in the art to derive the claimed invention from Shi and Kim (even if the two references were properly combinable which Applicants do not admit). Therefore, it is respectfully submitted that

Claims 11-35 are patentable over the cited references, and it is requested that this rejection be withdrawn.

Conclusion

It is respectfully submitted that the present application is in a condition for allowance and should be allowed.

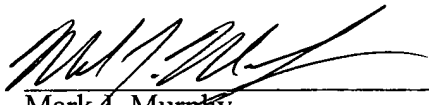
If any further fee should be due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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